Listing of the Claims

1-53. (Cancelled)

54. (Currently amended) A prosthesis, including:

a three-dimensionally braided structure including a plurality of structural strands and a plurality of textile strands interbraided with the structural strands and being more compliant than the structural strands, wherein the structural strands are formed of a structural material and have respective nominal shapes when in a relaxed state under no external stress and are elastically deformable away from their respective nominal shapes, wherein each of the structural strands further is adapted to be altered to acquire a selected nominal shape different from an original nominal shape;

wherein only the structural stands are so altered, and in their respective selected nominal shapes form windings about a longitudinal axis with tubular profiles, and further are oriented within the braided structure to impart to the braided structure a tubular predetermined nominal shape corresponding to said tubular profiles; ~~and~~

wherein each of the structural strands is adapted to be so altered according to a selective thermal setting including heating at least to a heat set temperature while maintaining the structural strand in the selected nominal shape, and the structural strands are susceptible to said selective thermal setting only when heated at least to a heat set temperature; and

wherein the textile strands have a melting temperature and tend to conform to the predetermined nominal shape imparted by the structural strands, and the heat set temperature is higher than the melting temperature.

55-57. (Cancelled)

58. (Previously presented) A medical device including an elongate and flexible catheter, and, mounted thereon, a prosthesis according to claim 54.

59. (Previously presented) The device of claim 58 further including:

a means for releasably maintaining the prosthesis at a distal end of the elongate and flexible catheter and in a resiliently radially compressed state, operable to release the prosthesis for a radial self-expansion at an intraluminal treatment site.

60. (Previously presented) The prosthesis of claim 54 wherein:

the structural strands cooperate to form a latticework, and the textile strands cooperate to form a textile sheeting supported by the latticework and occupying interstices between adjacent structural strands of the latticework.

61. (Previously presented) The prosthesis of claim 54 wherein:

the structural strands and textile strands are three-dimensionally braided into at least first and second discrete layers of the braided structure.

62. (Previously presented) The prosthesis of claim 61 wherein:

at least one of the strands of the first layer is braided into the second layer to interlock the first and second layers.

63. (Previously presented) The prosthesis of claim 61 wherein:

said first layer incorporates finer strands and has a greater permeability than the second layer.

64. (Previously presented) The prosthesis of claim 61 wherein:

said structural strands form a latticework incorporated primarily into the first layer.

65. (Previously presented) The prosthesis of claim 61 further including:

a plurality of drug eluting strands braided into the first layer.

66. (Previously presented) The prosthesis of claim 61 further including:

a plurality of absorbable strands interbraided with the structural strands and the textile strands.

67. (Previously presented) The prosthesis of claim 66 wherein:

the absorbable strands are braided primarily into the second layer.

68. (Previously presented) The prosthesis of claim 54 wherein:

said structural material is a metal selected from the group consisting of: stainless steel, an alloy including cobalt, and an alloy including titanium.

69. (Previously presented) The prosthesis of claim 54 wherein:

said structural material is a polymer selected from the group of polymers consisting of: PET, polypropylene, PEEK, HDPE, polysulfone, PTFE, FEP, polycarbonate urethane, and polyurethane.

70. (Previously presented) The prosthesis of claim 54 wherein:

said textile strands are multifilament yarns in the range of about 10-400 denier.

71. (Previously presented) The prosthesis of claim 70 wherein:

said multifilament yarns are composed of filaments, each filament being in the range of about 0.25-10 denier.

72. (Previously presented) The prosthesis of claim 70 wherein:

said multifilament yarns are formed of a material selected from the group of materials consisting of: PET, polypropylene, polyurethane, polycarbonate urethane, HDPE, polyethylene, silicone, PTFE, ePTFE, and polyolefin.

73. (Previously presented) The prosthesis of claim 54 wherein:

said selected nominal shapes of the structural strands are helical.

74. (Previously presented) The prosthesis of claim 73 wherein:

said structural strands cooperate to form a latticework including first and second sets of helices running in respective first and second opposite directions, wherein the interstices of the latticework are rhombic.

75. (Previously presented) The prosthesis of claim 74 wherein:

the first and second sets of helices are interbraided.

76. (Previously presented) The prosthesis of claim 74 wherein:

the first set of helices overlies the second set of helices.

77. (Previously presented) The prosthesis of claim 74 wherein:

the first and second sets of helices define a braid angle in the range of about 60-150 degrees.

78. (Previously presented) The prosthesis of claim 54 further including:

at least one radiopaque strand interbraided with the structural strands and textile strands.

79. (Previously presented) The prosthesis of claim 78 wherein:

said at least one radiopaque strand is incorporated within the first layer.

80. (Previously presented) The prosthesis of claim 73 wherein:

said structural strands are wound in a single direction, wherein the interstices are helical.

81. (Previously presented) The prosthesis of claim 54 wherein:

said structural material is a recovery metal, and the selected nominal shape of each structural strand is the shape to which the structural strand returns when heated at least to an activation temperature of the recovery metal.

82. (Previously presented) The prosthesis of claim 54 wherein:

the original nominal shape of each structural strand is linear, and the selected nominal shape of each strand is helical.

83. (Currently amended) A prosthesis, including:

a three-dimensionally braided structure including a plurality of resilient structural strands formed of a structural material and a plurality of compliant textile strands interbraided with the structural strands and being more compliant than the structural strands;

wherein each of the structural strands has a nominal shape when in a relaxed state under no external stress, and further is adapted to be thermally altered to acquire a selected nominal shape different from an original nominal shape by a heating of the structural strand at least to a thermal forming temperature while maintaining the structural strand in the selected nominal shape, wherein the structural strands are thermally formable only when heated at least to the thermal forming temperature;

wherein only the structural strands are so altered, and in their respective selected nominal shapes form windings about a longitudinal axis having tubular profiles, and are oriented within the braided structure to impart to the braided structure a tubular predetermined nominal shape corresponding to said tubular profiles; and

wherein the textile strands have a textile strand melting temperature and tend to conform to the predetermined nominal shape imparted by the structural strands, and the thermal forming temperature is higher than the textile strand melting temperature.

84. (Cancelled)

85. (Previously presented) The prosthesis of claim 83 wherein:

the textile strands are thermally formable.

86. (Previously presented) The prosthesis of claim 83 wherein:

the structural strands cooperate to form a latticework, and the textile strands cooperate to form a textile sheeting supported by the latticework and occupying interstices between adjacent structural strands and the latticework.

87. (Previously presented) The prosthesis of claim 83 wherein:

the structural strands and the textile strands are three-dimensionally braided into at least first and second discrete layers of the braided structure.

88. (Previously presented) The prosthesis of claim 87 wherein:

at least one of the strands of the first layer is braided into the second layer to interlock the first and second layers.

89. (Previously presented) The prosthesis of claim 87 wherein:

said first layer incorporates finer strands and has a greater permeability than the second layer.

90. (Previously presented) The prosthesis of claim 83 wherein:

said structural material is selected from the group consisting of: stainless steel, an alloy including cobalt, and an alloy including titanium.

91. (Previously presented) The prosthesis of claim 83 wherein:

said structural material is a polymer selected from the group consisting of: PET, polypropylene, PEEK, HDPE, polysulfone, acetyl, PTFE, FEP, polycarbonate urethane, and polyurethane.

92. (Previously presented) The prosthesis of claim 83 wherein:

the compliant textile strands are formed of a material selected from the group consisting of: PET, polypropylene, polyurethane, polycarbonate urethane, HDPE, polyethylene, silicone, PTFE, ePTFE, and polyolefin.

93. (Previously presented) The prosthesis of claim 83 wherein:

the structural strands cooperate to form a latticework including first and second sets of helices running in respective first and second opposite directions, whereby the interstices of the latticework are rhombic.

94. (Previously presented) The prosthesis of claim 93 wherein:

the first and second sets of helices define a braid angle in the range of about 60-150 degrees.

95. (Previously presented) A prosthesis, including:

a three-dimensionally braided structure including a plurality of structural strands and a plurality of textile strands interbraided with the structural strands and being more compliant than the structural strands, wherein the structural strands are formed of a structural material and have respective nominal shapes when in a relaxed state under no external stress and are elastically deformable away from their respective nominal shapes, wherein each of the structural strands further is adapted to be altered to acquire a selected nominal shape different from an original nominal shape;

wherein only the structural stands are so altered, and in their respective selected nominal shapes form windings about a longitudinal axis with tubular profiles, and further are oriented within the braided structure to impart to the braided structure a tubular predetermined nominal shape corresponding to said tubular profiles;

wherein each of the structural strands is adapted to be so altered according to a selective thermal setting including heating at least to a heat set temperature while maintaining the structural strand in the selected nominal shape, and the structural strands are susceptible to said selective thermal setting only when heated at least to the heat set temperature; and

wherein the textile strands have a melting temperature, and the heat set temperature is higher than said melting temperature.

96. (Previously presented) The prosthesis of claim 95 wherein:

the structural strands cooperate to form a latticework, and the textile strands cooperate to form a textile sheeting supported by the latticework and occupying interstices between adjacent structural strands of the latticework.

97. (Previously presented) The prosthesis of claim 95 wherein:

the structural strands and textile strands are three-dimensionally braided into at least first and second discrete layers of the braided structure.

98. (Previously presented) The prosthesis of claim 96 wherein:

at least one of the strands of the first layer is braided into the second layer to interlock the first and second layers.

99. (Previously presented) The prosthesis of claim 95 wherein:

said structural material is a metal selected from the group consisting of: stainless steel, an alloy including cobalt, and an alloy including titanium.

100. (Previously presented) The prosthesis of claim 95 wherein:

said structural material is a polymer selected from the group of polymers consisting of: PET, polypropylene, PEEK, HDPE, polysulfone, PTFE, FEP, polycarbonate urethane, and polyurethane.

101. (Previously presented) The prosthesis of claim 95 wherein:

the compliant textile strands are formed of a material selected from the group consisting of: PET, polypropylene, polyurethane, polycarbonate urethane, HDPE, polyethylene, silicone, PTFE, ePTFE, and polyolefin.

102. (Previously presented) The prosthesis of claim 95 wherein:

said selected nominal shapes of the structural strands are helical.

103. (Previously presented) The prosthesis of claim 95 wherein:

said structural material is a recovery metal, and the selected nominal shape of each structural strand is the shape to which the structural strand returns when heated at least to an activation temperature of the recovery metal.

104. (Previously presented) The prosthesis of claim 95 wherein:

the original nominal shape of each structural strand is linear, and the selected nominal shape of each strand is helical.

105. (Previously presented) The prosthesis of claim 95 wherein:

the textile strands are thermally formable.

106. (New) A prosthesis, including:

a three-dimensionally braided structure including a plurality of structural strands and a plurality of textile strands interbraided with the structural strands and being more compliant than the structural strands, wherein the structural strands are formed of a recovery metal and have respective nominal shapes when in a relaxed state under no external stress and are elastically deformable away from their respective nominal shapes, wherein each of the structural strands further is adapted to be altered to acquire a selected nominal shape, different from an original nominal shape, to which the structural strand tends to return when heated at least to an activation temperature of the recovery metal;

wherein only the structural stands are so altered, and in their respective selected nominal shapes form windings about a longitudinal axis with tubular profiles, and further are oriented within the braided structure to impart to the braided structure a tubular predetermined nominal shape corresponding to said tubular profiles; and

wherein the textile strands tend to conform to the predetermined nominal shape imparted by the structural strands.

107. (New) A medical device including an elongate and flexible catheter, and, mounted thereon, a prosthesis according to claim 106.

108. (New) The device of claim 107 further including:

a means for releasably maintaining the prosthesis at a distal end of the elongate and flexible catheter and in a resiliently radially compressed state, operable to release the prosthesis for a radial self-expansion at an intraluminal treatment site.

109. (New) The prosthesis of claim 106 wherein:

the structural strands cooperate to form a latticework, and the textile strands cooperate to form a textile sheeting supported by the latticework and occupying interstices between adjacent structural strands of the latticework.

110. (New) The prosthesis of claim 106 wherein:

the structural strands and textile strands are three-dimensionally braided into at least first and second discrete layers of the braided structure.

111. (New) The prosthesis of claim 106 wherein:

said textile strands comprise multifilament yarns.

112. (New) The prosthesis of claim 106 wherein:

said selected nominal shapes of the structural strands are helical.

113. (New) The prosthesis of claim 106 wherein:

each of the structural strands is adapted to be so altered according to a selective thermal setting including heating at least to a heat set temperature while maintaining the structural strand in the selected nominal shape, wherein the structural strands are susceptible to said selective thermal setting only when heated at least to a heat set temperature.

114. (New) The prosthesis of claim 113 wherein:

the textile strands have a melting temperature, and the heat set temperature is higher than said melting temperature.